



CONTROVERSY OVER SECRET ANTI-ANTHRAX TRIALS, GAS MASK DISTRIBUTION PLAGUE ISRAELI PASSIVE DEFENSE EFFORTS

A number of recent stories in the Israeli media have examined controversies surrounding certain efforts by the Israeli government to enhance the country's ability to withstand attacks with biological weapons (BW) or chemical weapons (CW). Past WMD Insights stories have explored the missile and chemical-weapon threat to Israel from Syria and Hezbollah, the south-Lebanon-based militant political faction. These stories have also examined Israeli military countermeasures. See "Israel Sees Growing Missile Threat from Syria," WMD Insights, July/August 2007 and "Special Report: Challenges Of Iranian Missile Proliferation - Part II, Assistance to Hezbollah," October 2006. This article reviews aspects of Israeli passive defense efforts, another dimension of the country's response to the CBW challenge.

On the evening of May 14, the Israeli investigative television program *Uvda* (Fact) disclosed that, beginning in the late 1990s, the Israeli Defense Forces (IDF) conducted a "secret experiment," in which some 700 soldiers were injected with a previously untried anti-anthrax vaccine. Dozens of the soldiers later suffered from "various illnesses," including "unexplained skin tumors, severe lung infections, serious migraine headaches, bronchitis and even epilepsy symptoms." [1] Although the development of the new vaccine had been reported in 2001, the experimental trial of the vaccine was a closely guarded secret, referred to only by its code name, "Omer 2"; the participating soldiers were prohibited from sharing any information about it, even with their families or commanding officers. [2]



Anthrax Vaccine
[Source: <http://www.anthrax.osd.mil/imagesOLD/vaccine/shot.jpg>]

Israeli Government Admits Secret Program

Following the exposé, the IDF and Defense Ministry publicly acknowledged the vaccination trials. Giora Martinovich, former chief medical officer for the IDF, told Israel Radio on May 15, 2007, that the trials had been initiated in 1998 because of fears that Saddam Hussein might attack Israel with anthrax bacterial spores. [3] The Defense Ministry, in a separate statement, stated that, "The research was conducted in preparation for the protection of the population of Israel from a strategic threat." [4]

Although reports differ on the precise date of the program's start-up, all place the date within roughly a year after UN Special Commission (UNSCOM) inspectors were withdrawn from Iraq in November 1998; the withdrawal took place before the inspectors had completed their mission of eliminating Iraq's weapon of mass destruction (WMD) programs. [5] At the time, many believed that Saddam Hussein, in the absence of international inspections, would work aggressively to reconstitute his WMD programs. In the 1980s, the WMD programs had included the production of anthrax bacteria. [6] Indeed, as Iraq's standoff with the United Nations over the continued presence of UNSCOM inspectors unfolded, chief UN weapons inspector, Richard Butler, was quoted as saying that Iraq had the capability to "blow away" Tel Aviv with biological weapons. [7] The remark set off a panic in Israel, as the government sought to purchase antidotes to the weapons from the United States and as Israeli citizens lined up at gas mask distribution centers. Newspapers informed readers as to where they could buy anti-germ protective biological suits, and the Knesset (the Israeli parliament) budgeted an additional \$69 million to cover gas masks and emergency supplies. [8] Various reports in spring-summer 2007 on the anthrax vaccine experiment indicate that Israel undertook the testing on human subjects because it did not possess adequate supplies of



proven vaccines and sufficient quantities of foreign-made vaccines were unavailable. [9]

Commenting on the revelation of the program, the Israeli Defense Ministry stressed that the volunteering soldiers “were kept under very strict medical observation. They were told in detail about the research and given the option to quit at any time” during the trial, which required the volunteers to receive between three and seven injections over a period of several months. [10] Martinovich, the IDF’s former chief medical officer, agreed that “there were some cases of permanent, systemic phenomena, certainly, including the soldier who appeared in the May 14 television story [who had been scarred by abscesses].” [11] Although Martinovich claimed that the Defense Ministry was compensating this soldier, the television exposé reported that the Defense Ministry and the IDF have taken no responsibility for the medical care of trial participants undergoing treatment in civilian medical facilities. [12]

Reportedly, three-quarters of the soldiers who participated in the study were given the Israeli vaccine, which had not been tried previously, while one-quarter were given an American vaccine that IDF authorities claimed was “completely safe.” [13] Although the developers of the Israeli vaccine continue to refuse to release information about the exact makeup of the Israeli version to the general public, scientific journals reported in 2001 that it is “essentially different from the previous American types and would be administered in one injection rather than a series of six” as the American version of the vaccine requires. (The volunteers all were given multiple injections to mask which vaccine they were receiving; those receiving the Israeli version were also given placebos so that the protocols for the two vaccines appeared identical to those receiving and administering the injections.) [14] Volunteers in both groups are reportedly suffering symptoms from the inoculations. [15] Following the intense media attention to the story, on May 28, 2005, the Israeli Medical Association

announced that it would establish a committee to probe whether the trial violated the ethical requirements for human clinical trials established by the Helsinki Declaration. [16]

Defenses Against Chemical Weapons Also Questioned

The late spring 2007 imbroglio over the Israeli anthrax vaccine illustrates Israeli anxieties over the effectiveness of self-protective measures against chemical or biological attack. In a second episode underscoring these concerns, on July 16, 2007, the *Jerusalem Post* reported that a subcommittee of the Foreign Affairs and Defense Committee of the Knesset had released a report stating that Israel is “woefully unprepared” for a chemical weapons attack. [17]

The subcommittee’s report criticized the system by which gas masks had been collected from Israeli citizens and stored for distribution in the event of an attack, saying that distribution under this system would take weeks. When the United States invaded Iraq in 2003, Israel instructed its residents to open their gas mask kits, which contained masks, iodine tablets to fight the effects of radiation, and a syringe of atropine to be used in the case of a nerve gas attack. After they are opened, the kits must be refurbished before they can be used again; defense authorities took this opportunity to collect the kits and store them in one place for redistribution only in the event of a tangible threat. [18]

The subcommittee called the decision to open the kits “problematic” and criticized defense authorities for their failure to ready the equipment for future use. The report called for a “process – gradual but quick – of updating and redistributing the kits” [19] and encouraged the government to spend \$235 million to provide the residents of northern Israel with gas masks and other protective equipment. [20] (In July-August 2006, population centers in Northern Israel were the target of extensive attacks by Hezbollah with



Israeli Civilian-Issue Gas Mask.
[Source: <http://www.jesseshunting.com/images/gasmask-israeli-civilian-frs-w-filter.jpg>]



conventionally-armed rockets, raising fears of further conflict in the area, which might include the use of CW.) A failure to update the equipment, the subcommittee report argued, would result in “the de facto destruction by our own hands of the home front defense system.” [21] However, former head of the Israel Defense Forces Home Front Command Ze’ev Livneh told Army Radio on July 16, 2007, that there was “no need for hysteria” about the report, stating confidently, “I know that steps are being taken.” [22]

As the subcommittee was preparing its report, the issue of the adequacy of Israeli self-protective measures was again raised in a July 5, 2007 article in the *Jerusalem Post*, which examined experts’ views on the question, “If the U.S. or Israel bombs Iran’s nuclear facilities, can Iran strike back at Israel with weapons of mass destruction?” [23] The paper found Israeli specialists divided on the issue, but, Dany Shoham, an expert on biological and chemical weapons at Bar-Ilan University, made clear he thought the consequences could be extremely grave, so dire that he refused to provide details because he did “not want to terrify the readers.” [24] The article went on to examine Israeli personal protective measures, highlighting Shoham’s concerns:

The usefulness of Israelis’ personal defensive measures – gas masks and sealed security rooms – has never been tested against an actual WMD attack because there has never been one here. Over the years, there has been a litany of problems with the gas masks, Shoham notes, while adding that these problems are solvable. Assuming the gas masks were in perfect working order and distributed to all Israelis in time, they could, theoretically, defend against a poison gas attack.

However, many biological agents such as anthrax and VX enter through the skin, so in such cases gas masks would be of no use. A privately-purchased protective suit could be effective, but outfitting all 7 million Israelis is not in the cards. And if anthrax, bubonic plague, botulism, nerve agents or the like were loosed among Israel’s population, it’s highly speculative whether, or for how long, people could survive wearing gas masks

THE AMERICAN EXPERIENCE

The American military has also faced difficulties with its attempts to vaccinate its soldiers against anthrax. In 1997, the United States announced a decision to vaccinate all military forces against anthrax, despite the fact that the Food and Drug Administration (FDA) had not yet approved the vaccine to be used. [1] However, in December 2003, a U.S. District Court judge ruled that the Department of Defense could not inoculate troops with experimental drugs without the personal consent of the subjects or the authorization of the president. [2] Despite the fact that the vaccine received FDA approval in 2005, vaccination for anthrax is still voluntary for American soldiers, and half of the personnel asked to take the shots since 2005 have declined the vaccination some apparently due to fear of side effects. [3]



A United States Air Force Sergeant Receives a Vaccination for Anthrax [Source: <http://www.vanceairscoop.com/images/uploads/Immunization3-9-07.jpg>]

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or even protective suits inside their sealed rooms. [25]

News on the issue of Israeli preparedness against CBW attacks is not all bleak, however. Two weeks after the release of the Knesset's report, the *Middle East Times*, a daily newspaper owned by News World Communications and based in Egypt, stated that Israeli scientists have discovered an enzyme, known as GOT, that can protect against neurological damage resulting from exposure to sarin. An Israeli firm called Braintact conducted the three-year research effort, which was funded by the United States Army. [26] However, like any other drug, GOT will have to undergo field trials before it can be approved for marketing, a process that will likely take years to complete and may in the end prove unsuccessful.

Conclusion

The revelations of Israel's difficulties in strengthening personal defenses against biological and chemical attacks are a reminder that even a highly-educated, mobilized, and cohesive society must surmount very complex practical challenges in preparing to meet these threats. The United States has also experienced practical difficulties in this regard, seen in the breakdown of its effort to vaccinate health workers and first responders against smallpox in 2003 and in the obstacles confronting the U.S. military's anthrax vaccination program, noted above. [27] Passive defensive measures, including vaccines, protective clothing, and other steps are a central element of the United States strategy to meet the threat of CBW terrorism. [28] Though in some respects less technologically challenging than active defense measures, such as defenses against long-range missiles, past experiences in Israel and in the United States suggest that their implementation may not be easily accomplished and cannot be taken for granted.

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